

# Population Health *Matters*

## The Reality of Disaster: An Educational Template That Brings Community into the Classroom

The focus of nursing education in the 21<sup>st</sup> century is to prepare nurses to work with individuals and their families within a community setting and to develop skills in providing nursing care that stresses the community as the client.<sup>1,2</sup> Competencies stress inter-professional collaboration and partnering with community, and include disaster preparedness, planning, and management.<sup>3</sup> However, baccalaureate nursing curriculum continues to prepare generalists who function best in hospital-based settings.<sup>3</sup> In the event of disaster, especially one that involves mass casualties and infrastructure disruption, the need for nursing care will not be limited to those victims transported to a hospital. There is a need to develop a specialized curriculum for nursing students to improve the overall response to a mass casualty event. With no established national consensus regarding a disaster preparedness curriculum and in response to these societal demands, Jefferson School of Nursing (JSN) set out to develop a community educational template designed to ready baccalaureate students for nursing practice in the event of disaster.

The topic of bioterrorism was first introduced in JSN's community health nursing course two years prior to the tragic events of 9/11. An RN from army intelligence presented on environmental, medical, and community health hazards associated with biological terrorism and the role of nursing in the aftermath of such events. The 9/11 terrorist attack on the World Trade Center reaffirmed the need to construct a more formal curricular approach to disaster preparedness and management.

An occupational health nurse and responder at Ground Zero assisted with expanding the disaster preparedness and management

community curriculum by including the following learning objectives:

1. Identify and characterize the various types of disasters, both natural and terrorist events, and describe their effects on people and their communities.
2. Describe the disaster management phases of *mitigation*, *preparedness*, *response*, and *recovery* and explain the role of the community nurse in each phase, including working with various responding agencies.

This expansion in objectives led to the inclusion of a community disaster preparedness project. The purpose of the project was to empower students to become familiar with the health care system and its level of disaster preparedness in the community where they live, and work, and execute their own preparedness within that system.

In 2007, the disaster preparedness template expanded to include group community disaster poster projects and an interactive realistic disaster drill utilizing simulation manikins and on-site field resources. This experience provided students with a disaster reality in a community in which many of them lived and/or worked. This led to clinical rotations with community organizations involved in disaster preparedness.

In 2009, an RN-BSN student completed her community clinical rotation at a week-long disaster management and preparedness training program for hospital emergency responders in Alabama. She was educated on the principles of the National Incident Management System (NIMS) and the Hospital Incident Command System (HICS); chemical,

biological, radiological, nuclear, and explosive (CBRNE) weapons of mass destruction; systematic decontamination of exposed patients prior to treatment in the emergency department; and specific monitoring and detection devices. She also completed hands-on training with Sarin and VX nerve agents.

Upon her return, the student developed an educational program for disaster management and preparedness for Jefferson pre-licensure nursing students by incorporating information regarding the various weapons of mass destruction. Her program included lecture, demonstration, and a take-home learning activity. Current academic models of education promote the extension of education from the classroom out into the community. This student, through her community clinical course requirements, assisted with the development of an educational template that engaged the community into the learning classroom. We presented this template for oral presentation at the American Public Health Association (APHA) national conference that year.

Over the past four years, this disaster program grew to involve the second author of this article, Dr. Edward Jasper. A three-hour slide, video, and pictorial lecture presentation was provided that included the authors' personal accounts of disaster training and participation. Pre-licensure nursing students participated in annual Philadelphia regional community-wide disaster exercises developed and run by Dr. Jasper as part of their end of semester Alternative Clinical Education (ACE) day. This annual exercise, while regional in scope, is the largest single hospital recurring exercise reported in the literature. In 2011, over 500 fully moulaged and

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trained simulated victims presented acutely to the Emergency Department of Thomas Jefferson University Hospital. These included approximately 250 Jefferson medical students, 200 Jefferson nursing students, 40 emergency medical services students, and 30 members of the medical reserve corps. In addition, over 50 hospitals and community organizations from the Greater Philadelphia region participated in this exercise.

In spring 2013, the disaster curriculum expanded to include several interactive iPad in-class activities to engage students in the lecture presentation and enhance their knowledge and understanding of their role in preventing, planning, and managing disasters. Moving forward, these authors are developing a pre- and post-program

student survey to be implemented before the disaster program and after the annual community drill in Spring 2014. The authors have also discussed the creation of interactive and inter-professional laboratory disaster stations for nursing and medical students to aid them in preparing for and managing community disasters and mass casualties.

There is no doubt that future natural disasters and the possibility of terrorist attacks may occur. There is a need for a national consensus in developing an inter-professional disaster preparedness curriculum that includes collaboration with the community. This curriculum should engage health care students in the reality of disaster by bringing community into the classroom through didactic presentations,

hands on skills participation, and community partnerships and interagency involvement in the overall disaster response. ■

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